

I CLAIM:

1. An electric door lock comprising:
 - a housing,
 - a handle rotatably attached to said housing,
 - 5 a lock device engaged in said housing,
 - a follower received in said housing and secured to said handle,
 - to rotatably secure said handle to said housing,
 - an electromagnetic control device including a receptacle
 - rotatably received in said follower, a plunger slidably engaged in
 - 10 said receptacle and extendible out of said receptacle to engage with
 - said follower, and means for selectively latching said plunger to
 - said receptacle, and to maintain an engagement of said plunger with
 - said follower, and to allow said receptacle of said electromagnetic
 - control device to be selectively latched to said follower with said
 - 15 selectively latching means, and
 - means for selectively connecting said lock device to said
 - plunger, to selectively latch said plunger to said receptacle and to
 - said receptacle, and to allow said receptacle of said electromagnetic
 - control device to be selectively latched to said follower with said
 - 20 selectively connecting means.
2. The electric door lock as claimed in claim 1, wherein said
- follower includes a wall provided thereon and having a passage
- formed therein, said plunger is slidably engageable into said
- passage of said wall, to selectively anchor said plunger and said
- 25 receptacle to said follower.
3. The electric door lock as claimed in claim 2 further
- comprising means for biasing said plunger to engage into said

passage of said wall.

4. The electric door lock as claimed in claim 3, wherein said plunger includes at least one inclined surface formed therein to engage with said wall, and to allow said plunger to be moved away
5 from said wall against said biasing means with an engagement of said at least one inclined surface of said plunger with said wall.

5. The electric door lock as claimed in claim 1 further comprising a coupler attached onto and rotated in concert with said receptacle of said electromagnetic control device, and a spindle
10 attached to said coupler.

6. The electric door lock as claimed in claim 5, wherein said coupler includes a fence extended therefrom to receive said receptacle of said electromagnetic control device, and to couple said receptacle of said electromagnetic control device to said spindle,
15 and said fence includes an opening formed therein to receive said plunger, and to allow said plunger to engage with said follower.

7. The electric door lock as claimed in claim 1, wherein said receptacle of said electromagnetic control device includes a latch received therein and engageable into said plunger, to selectively
20 latch said plunger to said receptacle, and means for actuating said latch to engage into said plunger and to latch said plunger to said receptacle.

8. The electric door lock as claimed in claim 7, wherein said plunger includes a recess formed therein, to selectively receive said
25 latch, and to allow said latch to be engaged into said recess of said plunger.

9. The electric door lock as claimed in claim 8, wherein said

electromagnetic control device includes an electromagnetic member received in said plunger, and to be energized to attract said latch to engage into said recess of said plunger.

10. The electric door lock as claimed in claim 9, wherein said
5 electromagnetic control device includes a control circuit board received in said receptacle and coupled to said electromagnetic member.

11. The electric door lock as claimed in claim 1, wherein said
handle includes a space formed therein and defined by a tube, a
10 barrel rotatably received in said tube and actuatable and rotatable by said lock device, and a catch received in said barrel and movable to selectively engage into said plunger when said barrel is rotated relative to said tube by said lock device.

12. The electric door lock as claimed in claim 11, wherein said
15 barrel includes at least one projection extended therefrom, said lock device includes a core having at least one actuating finger extended therefrom, for engaging with said at least one projection of said barrel, to selectively rotate said barrel relative to said tube.

13. The electric door lock as claimed in claim 11, wherein said
20 barrel includes a bar anchored therein and having said catch extended from said bar, and means for guiding said bar and said catch to move relative to said barrel, to selectively engage into said plunger when said barrel is rotated relative to said tube by said core of said lock device.

25 14. The electric door lock as claimed in claim 13, wherein said guiding means includes an inclined channel formed in said barrel, and a higher seat and a lower seat formed in ends of said inclined

channel of said barrel, said bar is slidably engaged with said inclined channel of said barrel and engageable in either of said higher seat and said lower seat of said barrel.

15 15. The electric door lock as claimed in claim 14, wherein said tube of said handle includes at least one slot formed therein, said bar includes at least one end engaged in said at least one slot of said tube.

16. The electric door lock as claimed in claim 14 further comprising means for biasing said bar to engage with said barrel.

10 17. The electric door lock as claimed in claim 11 further comprising means for biasing said catch away from said plunger.

18. The electric door lock as claimed in claim 11, wherein said plunger includes a cavity formed therein to selectively receive said catch.

15 19. The electric door lock as claimed in claim 11, wherein said handle includes a casing, a block received in said casing and having said space formed therein to receive said lock device.